



A.D. 1861, *4th May.* N^o 1121.

S P E C I F I C A T I O N



GEORGE RYDILL.

CONSUMING AND CONDENSING SMOKE.

L O N D O N :

PRINTED BY GEORGE E. EYRE AND WILLIAM SPOTTISWOODE,

PRINTERS TO THE QUEEN'S MOST EXCELLENT MAJESTY:

PUBLISHED AT THE GREAT SEAL PATENT OFFICE,

25, SOUTHAMPTON BUILDINGS, HOLBORN.

Price 8d.

1861.



A.D. 1861, 4th MAY. N^o 1121.

Consuming and Condensing Smoke.

(This Invention received Provisional Protection only.)

PROVISIONAL SPECIFICATION left by George Rydill at the Office of the Commissioners of Patents, with his Petition, on the 4th May 1861.

I, GEORGE RYDILL, of Dewsbury, in the County of York, do hereby declare
5 the nature of the said Invention for "A SMOKE CONSUMER AND CONDENSOR SUIT-
ABLE FOR FACTORIES, RAILWAY ENGINES, STEAM SHIPS, FURNACES, BRICK KILNS,
CINDER OVENS, BAKEHOUSES, AND OTHER PURPOSES," to be as follows:—

The smoke to pass, which arises from any coal, cinder, wood, turf, sulphur,
chemicals, &c., through a red-hot retort, round, oval, square, or any other shape,
10 as convenience deems necessary; this retort, flue, or any other hollow cavity to
be heated by fire or gas in the flue or flues under the boiler, or in any of the
flues round the boiler, dryhouse, or elsewhere as convenience may admit of,
over the heated flue; a boiler can be heated for supplying the boiler with pre-
pared hot water, or run an engine from the same, as thought best. After the
15 smoke has passed through the red-hot retort, flue, or otherwise, as before-men-
tioned, the same proceeds round the boiler or direct to a blast fan, worms, or
forcer, forcing and drawing air. The heated retort, flue pipes, culvert, &c.
can be applied either before the smoke enters the blast fan, worm, or forcer,
forcing and drawing air according to circumstances. The forcer receives the
20 carbon, sulphur, gas, smoke, &c. that may be left after the same has passed
through the red-hot cavity, flues, &c., and passes the same along a pipe into
water, at which extremity a fan or worm is in motion as necessity requires

Rydill's Method of Consuming and Condensing Smoke.

the vessel which receives the contents of the smoke, sulphur, dust, carbon, &c. ; the vessel contains water, remedying the pressure, so as to move the water. The water may be pure, in some cases lime or liquids will have to be added, as the carbon will vary as to the quality from the different coal fields, also to admit steam into the vessel or flue, as circumstances require water hot or cold 5 in like manner, so as to prevent the carbon, oxygen, &c. from ascending ; also to purify by water or steam the smoke as it passes along the flue or flues, as circumstances require, by water or steam springers. The machine for drawing and forcing air, smoke, etc., to be worked by steam, water, or hydraulic power, according to convenience, in or out of water. 10

By experiments the above is found to give every satisfaction, and would answer well for cottage property by having a conducting flue running along the house tops in streets or other places.

LONDON :

Printed by GEORGE EDWARD EYRE and WILLIAM SPOTTISWOODE,
Printers to the Queen's most Excellent Majesty. 1861.